

Task: 4372



GARY R. HERBERT  
Governor

GREGORY S. BELL  
Lieutenant Governor

# State of Utah

## DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER  
Executive Director

### Division of Oil, Gas and Mining

JOHN R. BAZA  
Division Director

October 20, 2011

Frederic C. Johnson  
Good Earth Minerals, LLC  
PO Box 790111  
Virgin, Utah 84779

Subject: Second Review of Notice of Intention to Commence Large Mining Operations, Good Earth Minerals, LLC, Gem Mine, M/053/0080, Washington County, Utah

Dear Mr. Johnson:

The Division of Oil, Gas and Mining has completed a review of your Notice of Intention to Commence Large Mining Operations for the Gem Mine. I apologize for the length of time it has taken to complete the review. The attached comments will need to be addressed before tentative approval may be granted.

The comments are listed under the applicable minerals rule heading; please format your response in a similar fashion. Please address only those items requested in the attached technical review by sending replacement pages of the original mining notice using redline and strikeout text. After the notice is determined technically complete and the Division is prepared to issue final approval, you will be asked to provide two complete clean copies of the plan. Upon final approval, one copy stamped approved will be returned for your records.

The Division will suspend further review of the Notice of Intention until your response to this letter is received. If you have any questions in this regard please contact me at 801-538-5261 or Lynn Kunzler at 801-538-5310. Thank you for your cooperation.

Sincerely,

Paul B. Baker  
Minerals Program Manager

PBB:lk:eb

Attachment: Review

cc: Janice Jones, Operator (jjones39@gmail.com)

Russell Schreiner, BLM (Russell\_Schreiner@BLM.gov)

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**INITIAL REVIEW OF NOTICE OF INTENTION  
TO COMMENCE LARGE MINING OPERATIONS  
Good Earth Minerals, LLC  
GEM Mine**

**M/053/0080  
October 19, 2011**

**R647-4-105 - Maps, Drawings & Photographs**

**105.2 - Surface facilities map**

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
1	Map 7 Appendix – Section 2, p3	The use of silt fences is discouraged because they will likely fail if they are not installed properly and regularly maintained. The Division recommends using rock check dams and berms to control siltation.  Please indicate the approximate locations of water management structures on appropriate maps.	PNB & TM	

**R647-4-106 - Operation Plan**

**106.6 - Plan for protecting & re-depositing soils**

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
2	Pages 9 & 17	With 12 inches of topsoil being salvaged over the entire area, 12 inches of soil need to be replaced. Please correct.	Lk	

**R647-4-109 - Impact Assessment**

**109.4 - Slope stability, erosion control, air quality, safety**

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
3		Please provide copies of the Air Quality Approval Order and the Storm Water Pollution Prevention Plan prior to the onset of mining operations. These should be inserted into an appendix.	LK	

**R647-4-110 - Reclamation Plan**

**110.2 – Reclamation of Roads, Highwalls, Slopes, etc.**



Initial Review  
Page 3 of 3  
M/053/0080  
October 19, 2011

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
4	13	Part b refers the reader to the variance section of the NOI. Since no variances are requested, please remove the reference to the variance section.	PNB	
5	14	Water management structures (berms, rock dams, etc) that will not be needed after the mining need to be removed as part of final reclamation.	PNB	

#### 110.5 - Revegetation planting program

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
6	Page 18	With low organic matter and low to very low levels of N and P, the Division recommends addition of 5-10 tons per acre of composted manure or biosolids, along with the application of 50 pounds per acre of a phosphate fertilizer. Please amend the plan accordingly.	LK	

#### R647-4-113 – Surety

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
7	P1 of 9	Please clarify whether this dozer work is strictly for scarifying the soil (the volume indicates it is) or if it includes regrading work. The Description of Task refers to recontouring slopes in the mining area.	PNB	
8	P 4 of 9	Correct the number of truck drivers to match the number of trucks planned (or vice versa), and recalculate labor costs (or equipment if using 3 trucks)	PNB	
9	P 3 & P 4 of 9	The topsoil placement calculation assumes six inches of soil. Please explain why 12 inches of soil will not be replaced when the NOI indicates that an average of 12 inches of soil will be salvaged. A total of 12 inches of soil will need to be respread over the site. As such, the topsoil replacement calculation should be done assuming volumes based on the 12-inch thickness (not the six inch value). Please correct the calculated volumes of topsoil moved and the associated work time & costs.	PNB	
10	NOI form p8	Stockpiled soils and volume for stockpiling should match, but are different (13,552 vs. 13,700). Please correct.	PNB	
11	Omission	Add calculations and accounting for work specified in the plan, but not included in the reclamation cost estimate. Please add costs for the following: 1) regrading of the temporary waste rock piles left onsite, 2) reclaiming (ripping the short road segment from 20' to 16' (near mine), and ripping the turnout areas along the access road.	PNB	
12	5 of 9 (part B & C)	Labor and seed costs are for only 11.5 acres, not the 13.4 acres. Please revise these calculations	PNB	